AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of the claims:

1. (currently amended) In a device for repeating a wireless Internet access of a user terminal between a wireless Internet access network and the user terminal, a wireless Internet access repeater comprising:

a first transmit and receive unit for transmitting receiving signals to/from the wireless Internet access network by a first communication type;

a second transmit and receive unit for transmitting receiving signals to/from the user terminal by a second communication type; and

a media access control (MAC) conversion manager for processing data included in the signal following the first communication type ~~signal~~ input by the first transmit and receive unit into a second communication type format, transmitting the second communication type format data to the second transmit and receive unit, processing data included in the second communication type signal input by the second transmit and receive unit into a first communication type format, and transmitting the first communication type format data to the first transmit and receive unit.

2. (original) The wireless Internet access repeater of claim 1, further comprising an operation controller for controlling the MAC conversion manager and controlling transmitting and receiving repetition of the signals which are transmitted according to the first and second communication types.

3. (original) The wireless Internet access repeater of claim 1, wherein the MAC conversion manager comprises:

a frame monitor for managing order information of the same data frame according to header information of the data frame included in the signals received by the first or second transmit and receive unit;

a frame processor for converting the data frame into a format which follows a MAC structure corresponding to a desired communication type;

a channel controller for controlling a modulation rate and a bit rate of the transmitted

data frame according to the communication type; and

a standby manager for controlling data rates according to the established modulation rate and the bit rate.

4. (original) The wireless Internet access repeater of claim 3, wherein the MAC conversion manager further comprises:

a channel allocator for allocating a channel to the data frame included in the signal received through the second transmit and receive unit; and

a channel manager for managing channel allocation information and channel states.

5. (original) The wireless Internet access repeater of claim 1, further comprising:

a first MAC processor for repeating transmission of the data frame between the MAC conversion manager and the first transmit and receive unit; and

a second MAC processor for repeating transmission of the data frame between the MAC conversion manager and the second transmit and receive unit.

6. (original) The wireless Internet access repeater of claim 1, wherein the user terminal is operated in a first mode for transmitting and receiving signals in a first frequency band according to the first communication type, and a second mode for transmitting and receiving signals in a second frequency band according to the second communication type.

7. (original) The wireless Internet access repeater of claim 1, wherein the first communication type is a wireless Internet access service type, and the second communication type is a wireless local area network service type.

8. (currently amended) The wireless Internet access repeater of claim 7, wherein the first communication type is a communication type which follows ~~the 2.3 GHz portable Internet~~ a mobile WiMAX service.

9. (original) The wireless Internet access repeater of claim 1, wherein the wireless Internet access repeater is located in a blanket area.

10. (original) In a method for repeating a wireless Internet access of a user terminal between a wireless Internet access network and the user terminal, a wireless Internet access

repetition method comprising:

(a) receiving a signal in a first frequency band following a first communication type and being transmitted from the wireless Internet access network;

(b) converting the received signal into a second communication type format;

(c) processing the converted signal into a signal in a second frequency band following the second communication type, and transmitting the processed signal to the user terminal;

(d) receiving a signal in a second frequency band following the second communication type and being transmitted from the user terminal;

(e) converting the received signal into the first communication type format; and

(f) processing the converted signal into a signal in the first frequency band according to the first communication type, and transmitting the signal to the wireless Internet access network.

11. (original) The wireless Internet access repetition method of claim 10, wherein the first communication type is a wireless Internet access service type, and the second communication type is a wireless local area network service type.

12. (original) The wireless Internet access repetition method of claim 10, wherein (b) comprises:

analyzing header information of a data frame included in the first communication type signal, and processing the same data frames in a predetermined order;

converting the data frame into a format which corresponds to a MAC structure following the second communication type, and storing it in a temporary storage unit; and

controlling a modulation rate and a bit rate and outputting the stored data frame according to the established modulation rate and the bit rate in order to transmit the data frame as a second communication type signal.

13. (original) The wireless Internet access repetition method of claim 10, wherein (e) comprises:

analyzing header information of a data frame included in the second communication type signal, and processing the same data frames in a predetermined order;

converting the data frame into a format which corresponds to a MAC structure following the first communication type, and storing it in a temporary storage unit;

allocating a channel for the data frame; and

controlling a modulation rate and a bit rate, controlling a data rate according to a difference between the established modulation rate and the bit rate, and outputting the data frame to the allocated channel in order to transmit the data frame as a first communication type signal.

14. (original) The wireless Internet access repetition method of claim 10, wherein the wireless Internet access repetition method repeats the wireless Internet access of the user terminal located in a blanket area.

15. (original) In a method for a user terminal to access a wireless Internet access network, a wireless Internet access method comprising:

(a) operating the user terminal in a first mode to be accessed to the wireless Internet access network according to a first communication type;

(b) determining whether the user terminal is located in the blanket area depending on a received state of the signal transmitted according to the first communication type;

(c) searching for a repeater which supports mutual switching between the first and second communication types when the user terminal is found in the blanket area; and

(d) operating the user terminal in a second mode to be accessed to the wireless Internet access network through the repeater according to the second communication type.

16. (original) The wireless Internet access method of claim 15, wherein the first communication type is a wireless Internet access service type, and the second communication type is a wireless local area network service type.

17. (currently amended) The wireless Internet access method of claim 16, wherein the first communication type is a communication type which follows ~~the 2.3 GHz portable Internet~~ a mobile WiMAX service.